

I. Babbitt,
Journal Box.
N^o 1252. Patented July 17, 1839.

Fig. 1.

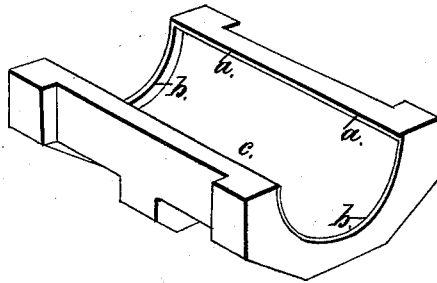


Fig. 2.

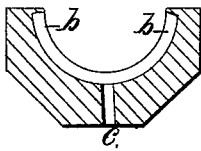
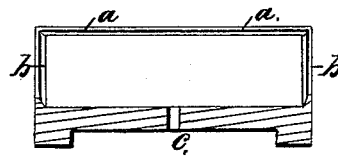


Fig. 3.



UNITED STATES PATENT OFFICE.

ISAAC BABBITT, OF BOSTON, MASSACHUSETTS.

MODE OF MAKING BOXES FOR AXLES AND GUDGEONS.

Specification of Letters Patent No. 1,252, dated July 17, 1839.

To all whom it may concern:

Be it known that I, ISAAC BABBITT, of the city of Boston, in the State of Massachusetts, have invented a new and improved mode of making or constructing the boxes within which the gudgeons or journals of machinery in general and the axles of railroad-cars, locomotive-engines, and other cars and carriages are to run, by which mode of constructing or making such boxes or bearings the heating and abrasion which are apt to occur under the ordinary mode of constructing them are prevented, and their durability is consequently increased; and I do hereby declare that the following is a full and exact description thereof.

I prepare boxes which are to be received into housings or plumber blocks in the ordinary way of forming such boxes, making them of any kind of metal, or metallic compound, which has sufficient strength, and which is capable of being tinned. The inner parts of the boxes are to be lined with any of the harder kinds of composition known under the names of britannia metal or pewter, of which block tin is the basis. An excellent compound for this purpose I have prepared by taking about 50 parts of tin, five of antimony, and one of copper, but I do not intend to confine myself to this particular composition. To prepare the boxes for the reception of this composition I cast them with projecting rims along their interior edges and on their ends, within the semicylindrical part which is to receive the axle or gudgeon. I then tin the inner surface of said boxes, and the ledges or rims above named, in order to cause the metallic composition with which they are to be lined, or cased, to adhere to them.

Figure 1, in the accompanying drawing is a perspective view of one of these boxes; Fig. 2, is a cross, and Fig. 3, a longitudinal section through it.

a, a, in Figs. 1 and 3, are the ledges, or rims along the edges, and *b, b*, those around the ends of said box. The use of these is to hold the metallic lining firmly in its place, and prevent its spreading. The lining may be used, however, without such ledges or rims. In finishing one of these boxes, I proceed in the following manner: I coat the inside, including the rims, with tin, in the well known manner of performing that operation. I then take a cylindrical, or a semicylindrical former, of the exact size, in its

cylindrical part, of the gudgeons or axle which is to run within it, and upon this axle, gudgeon, or former, I place my box, in such manner as that the axis of the axle or gudgeon, and of the curvature of the box shall coincide, my box being of such size as that when so placed the projecting rims or ledges shall not touch, but shall be nearly in contact with the gudgeon or axle, say within the distance of from a sixteenth to a thirty-second part of an inch, more or less. I then close these spaces by any suitable means, and it is then prepared to receive the lining of composition metal, which is to be melted and poured in. For the purpose of pouring it in there is a hole *c*, left through the middle of the box, which in those for railroad cars may be an inch in diameter, and will, in all cases, be proportioned to the size of the box. The metal thus poured in will take to the tinned surface of the interior of the box and the surrounding rims or ledges, and will cover the edges of the latter, so as to prevent contact between them and the axles or gudgeons which they are to receive, while the ledges will effectually check any tendency in the metal to spread from the weight and friction of the load. When the ledges are not used the coating of composition metal should be but thin.

Having thus fully described the nature of my improvement, and shown the manner in which I carry the same into operation, what I claim as my invention, and desire to secure by Letters Patent, is—

The making of the boxes for axles and gudgeons, in the manner above set forth; that is to say, by the casting of hard pewter, or composition metal, of which tin is the basis, into said boxes, they being first prepared and provided or not with rims or ledges, and coated with tin, as herein described and made known.

ISAAC BABBITT.

Witnesses:

THOS. P. JONES,
LENTON THORN.

Disclaimer.

To the Commissioner of Patents:

The petition of ISAAC BABBITT, of the city of Boston, in the State of Massachusetts, respectfully represents that he did on the

seventeenth day of July in the year 1839, obtain Letters Patent of the United States for an improvement in the mode of making boxes for axles and gudgeons; that he has
5 reason to believe that through inadvertence and mistake, the claim made in the specification of said Letters Patent is too broad, including that of which he probably was not the first inventor.
10 Your petitioner, therefore, hereby enters his disclaimer to that part of the claim in the specification of his patent above mentioned in which the words "or not" occur, so far only as those words are concerned,
15 but no further; the claim when so amended

will end in the words following "they being first prepared and provided with rims, or ledges, and coated with tin, as herein described and made known." By this disclaimer the words "or not" which stand be- 20
tween the words "provided" and "with" in the original claim, are to be considered as expunged. And for the purpose of entering the said disclaimer your petitioner has paid ten dollars into the Treasury of the 25
United States, in accordance with the requirement of the act of Congress in that case made and provided.

Washington, August 4th, 1840.

ISAAC BABBITT.